

AMENDMENTS TO THE CLAIMS

Listing of claims:

1. (Currently Amended) A method for synchronizing configuration data between an Element Management System (EMS) and a Network Element (NE), wherein the configuration data of the NE is divided into a plurality of configuration data layers, so layers such that different ~~configuration data layers~~ comprise different configuration data sets of minimum units, and wherein the a minimum unit identifier word is provided for each ~~configuration data layer~~ to identify ~~the any changes of~~ to the configuration data in the layer, the method comprising:

if the configuration data of the NE is changed, the NE changing the minimum unit identifier word of the ~~configuration data~~ layer corresponding to the changed configuration data;

the EMS obtaining the changed minimum unit identifier word from the NE; and

the EMS comparing the ~~received~~ obtained minimum unit identifier word with ~~the a~~ minimum unit identifier word stored in ~~it~~ the EMS to determine which ~~configuration data layer is~~ associated with the changed ~~configure~~ configuration data; ~~belongs to and the changes of the~~ configuration data, and

the EMS synchronizing the changed configuration data of corresponding NE ~~into it~~ according to the determined result with the EMS.

2. (Canceled)

3. (Currently Amended) The method according to ~~claim 2~~ claim 1, ~~wherein, the step of dividing the configuration data in the NE into at least one configuration layer comprises:~~ wherein the layers comprise dividing the configuration data into an NE configuration data layer, a service configuration data layer, and a table configuration data ~~layer respectively~~ layer; and

wherein the NE configuration data layer represents the collection of all the data of the NE, the configuration data of the NE is divided into the service configuration data layer according to a service characteristic, and the table configuration data layer is determined on the basis of service characteristics classification.

4. (Original) The method according to claim 3, further comprising:

dividing the configuration data in the table configuration data layer into row content layers.

5. (Canceled)

6. (Currently Amended) The method according to claim 1, ~~wherein, the step of setting wherein~~
the minimum unit identifier word ~~assigned for each of the configuration data layer~~ comprises:

~~respectively setting~~ a sequence number identifier word that identifies the minimum
configuration unit item with a sequence number; and/or

a network management table identifier word that is a configuration word and comprises
configuration tables of all the network management devices support by the NE;and/or

a mixed identifier word; or

~~for each configuration data layer as the minimum unit identifier word-~~ any combination
thereof.

7. (Currently Amended) The method according to claim 6, ~~wherein, wherein~~ the mixed identifier
word ~~comprises:~~ comprises a configuration device identifier, ~~or~~ a changing time identifier, ~~or~~ a
configuration item identifier, or any the combination of any two or three of them thereof.

8. (Currently Amended) The method according to claim 1, ~~wherein, wherein~~ the step of
changing the minimum unit identifier word of the configuration data layer corresponding to the
changed configuration data comprises:

determining which ~~configuration data layer~~ is associated with the changed configuration
data; ~~belongs to,~~ and

modifying the minimum unit identifier word of the ~~configuration data layer~~ associated
with the changed configuration data and any higher layers as well as those above the layer.

9. (Currently Amended) The method according to claim 1, further comprising:

determining which EMS has changed the configuration data of the NE; ~~NE, and~~

setting an operation user identifier word corresponding to the EMS that changed the configuration data;

the EMS obtaining the operation user identifier word from the NE; and

the EMS comparing the received operation user identifier word with the operation user identifier word stored in ~~it~~ the EMS to judge whether it is ~~itself~~ the EMS is the EMS that has changed the configuration data, and if not, executing the step of synchronizing the configuration data, ~~otherwise, ending the procedure.~~

10. (Currently Amended) The method according to claim 9, ~~wherein,~~ wherein the minimum unit identifier word assigned for each configuration data layer further ~~comprises:~~ comprises the operation user identifier word;

if the configuration data of the NE is changed, the NE determining which ~~configuration data-layer~~ is associated with the changed configuration data; ~~belongs to, and~~

modifying the minimum unit identifier words of the ~~configuration data-layer~~ associated with the changed configuration data and ~~configuration data any higher layers; above the layer,~~
and

~~the NE further~~ modifying the operation user identifier words comprised in the minimum unit identifier words.

11. (Currently Amended) The method according to claim 1, ~~wherein,~~ wherein the NE is in communication with a plurality of EMSs, wherein the NE sends a configuration changed event notification to the EMSs, which and wherein the configuration changed event notification comprises the changed minimum unit identifier word.

12. (Currently Amended) The method according to claim 11, ~~wherein,~~ wherein the step of the NE sending configuration changed event notification to EMSs comprises:

the NE postponing sending the configuration changed event notification to the EMSs for a predefined period of ~~time,~~ time; and

if the configuration is changed again during the predefined time, the NE will not send the configuration changed event notification until ~~the~~ at least one new change(s) is(are) change is finished.

13. (Currently Amended) The method according to claim 11, ~~wherein,~~ wherein the step of the NE sending the configuration changed event notification to the EMSs comprises:

if the NE continuously receives configuration commands from multiple different ~~management devices~~ EMSs or a batch processing configuration commands from a single ~~management device~~ EMS, the NE will not send the configuration changed event notification to the EMSs until all the corresponding configurations are finished.

14. (Currently Amended) The method according to claim 1, ~~wherein,~~ wherein the EMS actively queries the NE for the minimum unit identifier word.

15. (Currently Amended) The method according to claim 1, ~~wherein,~~ wherein the EMS compares the ~~received~~ obtained minimum unit identifier word with ~~that~~ a minimum unit identifier word stored in ~~it~~ the EMS to determine which ~~configuration data-layer~~ is associated with the changed configuration data, ~~belongs to and~~ wherein the configuration data ~~changes,~~ comprises changes comprise:

the EMS comparing the obtained minimum unit identifier word with the minimum unit identifier word stored in the EMS; one recorded in it,

if they the obtained minimum unit identifier word and the minimum unit identifier word stored in the EMS are not identical, determining that the configuration data of the ~~configuration data-layer~~ corresponding to the minimum unit identifier word is changed, ~~and determining the~~ configuration data changes according to a change details-detail of the minimum unit identifier word.

16. (Currently Amended) The method according to claim 1, ~~wherein,~~ wherein the step of the EMS synchronizing the changed configuration data of the corresponding NE comprises:

the EMS comparing the changed configuration data with that stored in ~~its~~ history record of the EMS to determine the changes of the configuration data, and then synchronizing the configuration data ~~in a predefined manner~~ according to the changes of the configuration data of the NE.

17. (Currently Amended) The method according to claim 16, ~~wherein,~~ wherein the step of synchronizing the configuration data by the EMS ~~in the predefined manner~~ according to the changes of the configuration data of the ~~NE,~~ NE comprises:

the EMS synchronizing the configuration data at a specified time.

18. (Currently Amended) The method according to claim 16, ~~wherein,~~ wherein the step of synchronizing the configuration data by the EMS ~~in the predefined manner~~ according to the changes of the configuration data of the ~~NE,~~ NE comprises:

the EMS synchronizing the configuration data immediately ~~when~~ in response to receiving the changed minimum unit identifier word and ~~the~~ an operation user identifier word.

19. (Currently Amended) The method according to claim 16, ~~wherein,~~ wherein the step of synchronizing the configuration data by the EMS ~~in the predefined manner~~ according to the changes of the configuration data of the ~~NE,~~ NE comprises:

after receiving the changed minimum unit identifier word and ~~the~~ an operation user identifier word, the EMS delaying a predefined period of time before synchronizing the configuration data.

20. (Currently Amended) The method according to claim 16, ~~wherein,~~ wherein the step of synchronizing the configuration data by the EMS ~~in the predefined manner~~ according to the changes of the configuration data of the ~~NE,~~ NE comprises:

setting a manual synchronization command; and

the EMS synchronizing the configuration data according to the manual synchronization command.

21. (New) A method comprising:

determining whether a configuration data within a network element (NE) comprises a change, wherein the configuration data is divided into a plurality of layers, and wherein each layer is associated with one of a first plurality of words that each identify any changes to the associated layer;

changing the first words associated with the layers that comprise the change when the configuration data comprises a change;

sending the first words but not the change to an Element Management System (EMS), wherein the EMS compares the first words to a plurality of second words and initiates a synchronization process when the first words do not match the second words.

22. (New) The method according to claim 1, wherein the minimum unit identifier word represents the changed configuration data but does not comprise the changed configuration data.